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ABSTRACT

The Perception of Baby Temperament Scales (PBT) were used to elicit parental perceptions of infant temperament, with the results rated for internal consistency and congruence between parents. Data was obtained from 26 families, with both father and mother describing their first-born infants at five months of age. The PBT Scales deal with a range of infant responses to situations such as social and autonomous play, feeding preferences and scheduling, bathing and the infant's pattern of sleep and wake cycles. Items selected were restricted to those likely to be familiar to both fathers and mothers. (The PBT's focus on parental perception is seen as contributing to a fuller understanding of the complex interactional dynamics between parent and infant.) Results reported are basically internal analyses of the psychometric properties of the instrument and the congruence of maternal and paternal perceptions. The nine conceptual dimensions of the PBT used were: activity, rhythmicity, adaptability, approach to novel experience, positive mood, threshold, persistence, distractibility and intensity. (BF)

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A Methodology for Assessing Parental Perception of Infant Temperament

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Recent efforts to conceptualize parent-infant interaction as a reciprocal process have heightened interest in infant temperament. Certainly parent-infant dyadic interaction can only be understood when there is an appreciation of what each actor brings to the interaction. It is likely that the parent brings behaviors determined by a reading of the immediate situation, some long-term socialization goals, and certain affective components about which we know very little. It is also likely that the infant has some consistencies in styles of responding in different situations. The term infant temperament has been used to describe these consistencies, and we view temperamental qualities as an important component of the infant's contribution to dyadic exchanges.

Techniques for the measurement of infant temperament follow two general strategies: assessments by trained observers, and parental reports elicited by interviews and questionnaires. The difference between these two major strategies represents more than an issue of methodology. There is a basic conceptual distinction which is often blurred. Parental report techniques, whether based on interview or questionnaire, deal fundamentally with parental perceptions, the schema with which interactions are structured by the parent. Parental perceptions of the infant lead to expectancies that certain behaviors will characterize the infant's response style in specified situations. Part of the task of unraveling

parent-infant interaction is to understand how the characteristics of the infant are translated into parental perceptions and expectancies.

The monograph by Thomas, Birch, Chess and their colleagues (Thomas, Birch, Chess, Hertzig and Horn, 1963) does not make a strong distinction between parental perceptions of temperament and the judgments of independent observers, but their work, nonetheless, provided impetus to research on infant temperament. Scarr and Salapatek (1970) and Carey (1970) developed questionnaires from the Thomas et al maternal interviews. These questionnaires make an important contribution by quantifying the information in the Thomas et al interview, but each has room for greater refinement. More importantly, there is a lack of information about their psychometric properties. For example, internal consistency data have not been reported. Both instruments seem vulnerable to response sets such as social desirability or acquiescent tendencies. The Perception of Baby Temperament scales (PBT) were designed to go a few steps further in the refinement process.

In eliciting parental perceptions of infant temperament, we utilized the nine conceptual dimensions described by Thomas et al (1963). A list of these appear in Table 1. As in the Thomas maternal interview and the questionnaires which evolved from it, the PBT deals with a range of infant responses to situations such as social and autonomous play, feeding preferences and scheduling, bathing, and the infant's pattern of sleep and wake cycles. Because our interests in perceptions of infant temperament are in the context of a larger investigation of family interaction and both parents were participating, it was critical that items were also appropriate for fathers. Therefore, in the selection

items, we restricted ourselves to a sampling of experiences likely to be familiar to both mothers and fathers. See appendix for list of items.

We attempted to deal with two different types of response sets, social desirability and acquiescent tendencies. To reduce the bias of differential social desirability on items, we phrased our statements so that, regardless of whether they are assented to or disagreed with, they describe a range of infant behaviors likely to be seen as "normal" by the parents. Statements are also at a behavioral level of description in an effort to reduce their evaluative connotations. To deal with acquiescent response tendencies, half of the items in each scale are stated in a positive direction so that the respondent must agree with these items to score high on that dimension; the other half are worded in a negative direction, so that one must disagree on these in order to receive a high score. Each of the nine scales has six items, for a total of 54 items.

The PBT is administered in a Q-sort format with statements appearing on 3 x 5 cards. Each parent is given a set of identical cards with the items in random order. Items are sorted independently by each parent into three response categories that represent the degree to which the statements are applicable to their infant. The response categories are "Very much like my baby;" "Sometimes or occasionally like my baby;" and "Not at all like my baby." There is also a reject category that says "Have no experience with this," in order to screen out decisions that do not have an experiential base.

After item selection and informal pilot testing were completed, we obtained data on 26 families, the initial group of subjects participating

in an ongoing study of family interaction. Both the father and mother described their first-born infant at 5 months of age. There were 17 male and 9 female infants. Families were recruited through newsletters for two childbirth preparation groups in the Washington, D.C. metropolitan area. The parents were Caucasian and all but three mothers and three fathers had at least a bachelor's degree; 54% of the fathers and 12% of the mothers had college work beyond the bachelor's level. The parents were married a mean of 4.2 years and the mean parental age was around 30 years (29.1 for the mothers and 30.6 for the fathers).

The types of results that we will report are basically internal analyses of the psychometric properties of the instrument and the congruence of maternal and paternal perceptions.

Table 1 indicates that the corrected split-half reliabilities for 5 of the scales are moderate but within acceptable limits. Internal consistency on the Activity, Rhythmicity, Adaptability, Approach, and Positive Mood scales range from .54 to .69. These results are for mothers and fathers combined, making an N of 52. When we examined the split-half reliabilities separately by sex of parent, data which are not shown in the table, we found that internal consistencies were not significantly different for mothers and fathers on any temperament dimension.

Intercorrelations between the internally consistent scales are low to moderate. These correlations ranges from -.38 to +.40 with the median absolute degree of interrelationship only .13. This indicates that we have reasonably good differentiation among these temperament dimensions. The low-order interrelationships among scales also suggest

that there is not a common response set, either social desirability or acquiescent tendency, that dominates responding to the different scales.

As would be expected from our effort to select items describing experiences common to mothers and fathers, it was fairly infrequent that parents used the "Have no experience" response option. Of all the choices that the mothers made, 6% fell in the "Have no experience" category, which corresponds to about 3 choices per administration. The comparable figure for fathers was 12.8%, which is, however, significantly higher. Approximately half of the "Have no experience" responses for both mothers and fathers occurred on one scale, the Adaptability scale. These items have the quality of imposing circumstances dictated more-or-less by the wishes or convenience of the parent upon the infant. In our sample, we have observed that the parents value "letting the infant lead the way" in routines such as scheduling of feeding and sleep. This minimizes instances in which the baby's adaptability becomes an issue. With other samples, however, the Adaptability dimension may be more within their experiences.

In regard to the four scales which show lower levels of internal consistency, it is unclear whether these results reflect purely upon the psychometric properties of the scales or whether they also bear upon the infant behaviors being assessed in the first half year of life. To illustrate at a concrete level, except for very subtle differences in wording, the affirmative statements relating to Persistence tend to be somewhat similar in character to negative statements regarding Distractibility. The low internal consistencies of these two scales may therefore

reflect a few items which were simply inappropriate. We plan further empirical sorting out of the items in the two scales, which might lead to a redefinition of a single scale having adequate internal consistency.

It is also possible that infant behaviors tapped on the dimensions Intensity and Threshold are not particularly stable and consistent at this developmental period. In other words, the lower levels of internal consistency found on these scales may reflect the parent's perception of a true lack of consistency in the baby which appears as a technical limitation of the scales. At other developmental periods, however, these dimensions might be more stable and the scales might meet the technical criteria for adequate measurement. Whatever the reasons for low-internal consistency may be, it is important to appreciate that data of this nature, which require a critical examination of these concepts, have not been available before.

Table 1 also reports correlations between the independent judgments of mothers and fathers describing the same infant. For this analysis the N is 26, the number of mother and father pairs. On 5 scales there is significant agreement between parents in the characterization of their infant. Except for the Approach to Novel Experiences scale, we see that among the more internally consistent scales, there is some congruence in perception between mothers and fathers. This suggests that the items on these scales are sensitive to shared experiences and/or shared communications regarding the baby.

Differences in mother-infant and father-infant interaction patterns may be related to the degree of congruence or discrepancy in their

perceptions of the infant. Based on behavioral observations, Lamb (1975) reported that fathers of 7-month-old infants tend to interact more robustly and vigorously than do mothers. In an investigation focusing on parental perceptions of infants, Rubin, Provenzano & Luria (1974) found that fathers sex-stereotype newborns to a greater degree than do mothers; they attribute characteristics such as "delicate" to infants they are told are female and "strong" to supposedly male infants, when in fact, it is the same infant. Neither of the two studies attempted to establish the important linkages between the parent's perception of the infant and behavioral interaction with the infant. We believe differential perceptions may underlie some of the areas in which maternal and paternal behaviors are different.

Research and theorizing regarding infant temperament has not shown a great deal of incisiveness in distinguishing between temperament as characteristics in the infant, and temperament as psychological constructs which serve to structure interactions for the parent. Keeping this distinction clear is very important. Together with data assessment techniques providing an independent appraisal of the infant, the PBT's focus on parental perceptions affords an opportunity for a fuller understanding of the complex interactional dynamics between parent and infant.

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Table 1

Perception of Baby Temperament Scales: Internal Consistency and Congruence Between Parents

Temperament Dimension (From Thomas, et al)	Split-Half Reliability (N=52)	Correlation Between Parents in Same Family (N=26)
Activity	.69**	.43*
Rhythmicity	.65**	.41*
Adaptability	.60**	.49*
Approach	.58**	.08
Positive Mood	.54**	.57**
Threshold	.48**	.53**
Persistence	.42**	.38
Distractibility	.38**	.13
Intensity	.31*	.32

** < .01

* < .05